

AMENDMENT

LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-13. (Canceled).

14. (Original) A method of preventing bacterial, yeast, fungal or viral infection comprising: applying topically to skin or a mucous membrane of a mammal a probiotic composition comprising a *Bacillus species*; and allowing the *Bacillus species* to grow topically for sufficient time to inhibit growth of bacteria, yeast, fungus or virus.

15. (Original) The method of Claim 14, further comprising the steps of providing spores of the *Bacillus species* in the probiotic composition, and allowing the spores to germinate after the applying step.

16. (Original) The method of Claim 14 wherein said *Bacillus species* is selected from the group consisting of *Bacillus coagulans*, *Bacillus subtilis*, *Bacillus laterosporus* and *Bacillus laevolacticus*.

17. (Previously presented) The method of Claim 14 wherein said composition comprises contains 10^3 to 10^{12} viable bacteria or spores per gram of composition.

18. (Previously presented) The method of claim 14 wherein said administering comprises applying from 10^8 to 10^{10} viable bacteria or spores per day.

19. (Previously presented) The method of claim 14 wherein said administering comprises applying from 5×10^8 to 10^9 viable bacteria or spores per day.

20. (Previously presented) The method of Claim 14 further comprising an effective amount of a fructo-oligosaccharide (FOS).

21. (Original) The method of Claim 20 wherein said FOS is present in an amount of from about 10 to 1000 milligrams per gram of composition.

22. (Original) The method of Claim 20 wherein said FOS is present in an amount of from about 100 to 500 milligrams per gram of composition.

23. (Original) The method of Claim 14, wherein the step of allowing the *Bacillus* species to grow inhibits growth of one or more microbes selected from the group consisting of *Staphylococcus* species, *Pseudomonas* species, *Escherichia coli*, *Proteus* species, *Klebsiella* species, *Candida* species and *Trichophyton* species.

24. (Original) The method of Claim 14, wherein the applying step comprises applying a probiotic composition in the form of a cream, lotion, gel, oil, ointment, suspension, aerosol spray, powder, aerosol powder or semi-solid formulation.

25-33. (Canceled).

34. (Original) A method of inhibiting growth of bacteria, yeast, fungus, virus or any combination thereof, comprising: applying a composition comprising a *Bacillus* species to a solid surface; contacting the solid surface with the applied *Bacillus* species thereon to skin or a mucous membrane of a mammal; and allowing the solid surface to contact the skin or mucous membrane for sufficient time to allow initiation of probiotic activity of the isolated *Bacillus* species to inhibit growth of bacteria, yeast, fungus, virus or a combination thereof adjacent to or on the skin or mucous membrane.

35. (Previously presented) The method of Claim 34, wherein the solid surface comprises a flexible article selected from the group consisting of a diaper, pliable material for wiping skin or a mucous membrane, dermal patch, adhesive tape, absorbent pad, tampon and article of clothing.

36. (Original) the method of Claim 34, wherein the applying step comprises impregnating the

composition into a fibrous or nonfibrous solid matrix.

37. (Original) The method of Claim 34, wherein the *Bacillus* species is included in the composition in the form of spores.

38. (Original) The method of Claim 34, wherein the *Bacillus* species is included in the composition in the form of a dried cell mass.

39. (Original) The method of Claim 34 wherein said *Bacillus* species is selected from the group consisting of *Bacillus coagulans*, *Bacillus subtilis*, *Bacillus laterosporus* and *Bacillus laevolacticus*.

40. (Previously presented) The method of Claim 34 wherein said composition comprises contains 10^3 to 10^{12} viable bacteria or spores per gram of composition.

41. (Previously presented) The method of Claim 34 further comprising an effective amount of a fructo-oligosaccharide (FOS).

42. (Original) The method of Claim 41 wherein said FOS is present in an amount of from about 10 to 1000 milligrams per gram of composition.

43. (Original) The method of Claim 41 wherein said FOS is present in an amount of from about 100 to 500 milligrams per gram of composition.

44- 48. (Canceled).

49. (Previously presented) A method of preventing or treating a vaginal infection, comprising: identifying a subject suffering from or at risk of developing a vaginal infection; and applying topically to the skin or a mucous membrane of said subject a composition comprising *Bacillus coagulans* bacteria.

50. (Previously presented) The method of claim 49, wherein said infection is caused by a pathogen, wherein said pathogen is selected from the group consisting of bacteria, yeast, fungus, virus, and a combination thereof.
51. (Previously presented) The method of claim 50, wherein said yeast pathogen is selected from the group consisting of *Candida albicans*, *Candida tropicalis*, and a combination thereof.
52. (Previously presented) The method of claim 50, wherein said bacterial pathogen is selected from the group consisting of *Staphylococcus*, *Streptococcus*, *Pseudomonas aeruginosa*, enterohemorrhagic *Escherichia coli*, *Clostridium perfringens*, *Clostridium difficile*, *Gardnerella vaginalis*, *Propionibacterium acnes*, *Aeromonas hydrophilia*, *Aspergillus*, *Proteus* and *Klebsiella*.
53. (Previously presented) The method of claim 50, wherein said fungal pathogen is selected from the group consisting of *Trichophyton mentagrophytes*, *T. interdigitale*, *T. rubrum*, and *T. yaoundei*.
54. (Previously presented) The method of claim 50, wherein said viral pathogen is selected from the group consisting of Herpes simplex virus I and II.
55. (Previously presented) The method of claim 49, wherein said composition is in a form selected from the group consisting of a douche, bath salt, soap, powdered bubble bath, bath powder, bath oil, cream, liquid, powder, non-soap emollient cleanser, suppository, soft towelette, and aerosol microparticulate.
56. (Previously presented) The method of claim 49, wherein the *Bacillus coagulans* bacteria are in the form of spores.
57. (Previously presented) The method of claim 49, wherein the *Bacillus coagulans* bacteria are in the form of vegetative cells.

58. (Previously presented) The method of claim 49, wherein said composition contains 10^3 to 10^{12} viable bacteria or spores per gram of composition.

59. (Previously presented) The method of claim 55, wherein said bath oil further comprises mineral oil, laureth-4, quaternium-18 hectorite and phenylcarbinol.

60. (Previously presented) The method of claim 55, wherein said bath oil further comprises olive oil, grape seed oil, emu oil, sweet almond oil, geranium oil, grapefruit oil, mandarin oil or peppermint oil.

61. (Previously presented) The method of claim 55, wherein said bath oil further comprises a fragrance.

62. (Previously presented) The method of claim 55, wherein said non-soap emollient cleanser further comprises sodium octoxynol-2 ethane sulfonate, petrolatum, octoxynol-3, mineral oil, lanolin oil, cocamide MEA, or imidazolidinyl urea.

63. (Previously presented) The method of claim 55, wherein said soft towelette further comprises potassium sorbate and disodium EDTA.

64. (Previously presented) The method of claim 55, wherein said moist towelette further comprises DMDM hydantoin, isopropyl myristate, methylparaben, polysorbate 60, propylene glycol, propylparaben or sorbitan stearate.

65. (Previously presented) The method of claim 55, wherein said moist towelette is disposable.

66. (Previously presented) The method of claim 55, wherein said vaginal infection comprises bacterial vaginosis.

67. (Previously presented) The method of claim 55, wherein a symptom of said vaginal infection is selected from the group consisting of vaginal itch and discharge.
68. (Previously presented) The method of claim 49, wherein said composition is in the form of a vaginal suppository or insert comprising from about 10^6 to 10^{12} viable *Bacillus coagulans* bacteria.
69. (Previously presented) The method of claim 68, wherein between one and about three suppositories or inserts are used per day for a consecutive period of time of about three to about seven days.